

## ABSTRACT

A mapping catheter assembly 10 including a flexible lead body 12 and a deformable lead body 14. A lumen 22 is provided to accept a reference catheter 18 which includes a distal tip electrode assembly 29. In use an array 16 of electrode sites are deformed into a spherical shape after the assembly is placed in a heart chamber. The reference electrode assembly 29 is advanced into contact with the heart wall to provide calibration information for the array 16.